



# GENIE®

## Cylinder user manual.

Smart. Convenient. Portable.

### Safety

The GENIE cylinder has been designed to the required EN and ISO standards. It contains gases at high pressure and should be treated with care and caution. It is important that you read this manual before using this product for the first time to ensure you are familiar with all the product features, operating instructions and guidelines for use.

### Handling and transportation

The GENIE cylinder handle has also been designed as a guard to protect the cylinder valve from accidental damage.

GENIE cylinders should always be transported and used in an upright position, never on their side or inverted.

**⚠ NEVER** use cylinder handles as lifting points for cables, straps, crane hooks or anything other than hands.

## Displays

### Digital display

The Digital Intelligence Unit (DIU) display differs, depending on the gas supplied. It provides information on how much gas is left in the cylinder. When gas levels get below 25% and 10%, an alarm and flashing light indicate this.

### Operation

To start push the button on the DIU to initiate the display. After 3 seconds the start up screen will change to one of the versions below, depending on the type of gas the cylinder contains. The DIU only remains active for 40 seconds before shutting down if no further operations have been carried out.



#### Start up screen for the nitrogen (N<sub>2</sub>) GENIE cylinder

- 1 Cylinder pressure when full – this valve doesn't change when in use
- 2 Percentage of contents left
- 3 Gas type
- 4 Number of black bars indicates the contents remaining



#### Start up screen for the Shielding gas GENIE

- 1 Flow rate units
- 2 Welding flow rate
- 3 Arrow shows direction of next flow rate
- 4 Gas type
- 5 Value is the number of minutes welding time left
- 6 Number of black bars indicates the contents remaining



#### Start up screen for helium (He)/balloon gas GENIE® cylinder

- 1 Balloon size chosen shows in black
- 2 Arrow shows direction of next balloon size
- 3 The approximate number of balloons that can be filled with the remaining gas at the selected balloon size
- 4 Number of black bars indicates the contents remaining



Extra small balloons (XS) are between 80 and 179mm (3 to 7") diameter  
Small balloons (S) are between 180 and 240mm (7.1 to 9.5") diameter  
Medium balloons (M) are between 250 and 350mm (10 to 14") diameter  
Large balloons (L) are between 380 and 480mm (15 to 18.5") diameter  
Extra large balloons (XL) are between 500 and 700mm (19 to 27.5") diameter

If you have a helium/balloon gas or shielding gas GENIE cylinder, a balloon size or gas flow rate will have been pre-selected. To change this, select the direction of the arrow as needed by pressing and holding the button down (increase =  $\uparrow$  and decrease =  $\downarrow$ ). Then press the button to select the required size of balloon or welding flow rate.



Shielding gas screen showing welding time left at 16 l/min. Arrow denotes if button is pressed next value will be 15 l/min.



Shielding gas screen showing welding time left at 15 l/min. Arrow denotes if button is pressed next value will be 16 l/min.

**Please note:** The readouts for the number of balloons that can be filled or the welding time remaining are for indication purposes only and should not be taken as absolute value or guarantee. Changing the value on the display does not alter the actual flow rate from the unit.

## Alarms

There are three audio and visual alarms on the DIU:

- At 25% full, the alarm sounds and warning LED flashes twice for 0.2 seconds followed by a 1 second gap then twice again. The bars on the cylinder graphic also flash
- At 10% full, the alarm sounds and warning LED flashes twice for 0.5 seconds with a 0.5 second gap. The bar on the cylinder graphic also flash
- At empty the alarm sounds and warning LED flashes twice cylinder symbol also flashes.

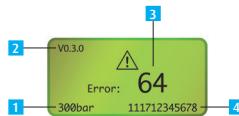
**Please note:** These alarms only occur the first time the GENIE cylinder is turned on after an alarm condition is met.

## Error message

Should a problem occur with the DIU an error screen will appear. The GENIE is still safe to use but no information about the contents will be available.

### Example of an error screen

- 1** Cylinder pressure when full
- 2** Version number
- 3** Error code
- 4** Serial number



DIU has no user serviceable components and under no circumstances should any attempt be made to open or interfere with the DIU unit.

## Accessories

Use only approved GENIE accessories, as non-approved items may damage the cylinder and you may be charged a fee to repair the cylinder. Each accessory comes with its own instructions and warranty. Please ensure that you read these thoroughly before using the product.

## Using your GENIE

Before using your GENIE cylinder, you will need to attach a regulator, or in the case of helium used as a balloon gas, a balloon inflator. The regulators and inflators come with their own instructions.

## GENIE regulators

Safety is priority for Linde. Therefore, the GENIE cylinder handles have been specifically designed to protect the valve and regulator. Only GENIE gas and pressure specific regulators should be used to guarantee performance and genuine products should be used at all times.

## Range of regulators

| Gas type       | Max inlet pressure | Model         | Genie® regulator description | Outlet connection | Delivery range |
|----------------|--------------------|---------------|------------------------------|-------------------|----------------|
| Ar, Mist. Ar   | 300 bar            | GAir-300-30-3 | F, 1G, SG                    | G 3/8             | 0–30 lpm       |
| N <sub>2</sub> | 300 bar            | GN2-300-30-3  | P, 1G, N <sub>2</sub>        | G 3/8             | 0–10 bar       |

\*F = Flow, G = Gauge, SG = Shielding gas, P = Pressure

## Fitting regulators

Regulators are designed for use with specific gases or groups of gases and must only be fitted to their respective cylinders.

1. Ensure the regulator is in good condition before fitting to the cylinder. Gauges should be intact with threads and seats undamaged
2. Clean the cylinder valve and regulator threads using a dry, clean piece of lint free cloth to remove dirt, moisture, oil and grease particles
3. Carefully locate regulator seats into the valve, place the nut over the threads ensuring that you do not cross thread, and tighten with the appropriate spanner
4. DO NOT OVERTIGHTEN, as this will damage your regulator.
5. Turn the regulator knob counter clockwise until it stops
6. Slowly open the cylinder valve
7. Turn the regulator knob clockwise to set normal delivery pressure or flow

**⚠ NEVER** dismantle or modify a regulator to make it fit.

**⚠ NEVER** use adaptors between the cylinder valve and the regulator to make it fit.

**⚠ NEVER** use oil or lubricants on the cylinder valve or regulator threads. Oil or lubricants can trap dirt and make the regulator difficult to fit or leak, they can also be carried into the regulator and cause a malfunction. If the cylinder contains oxygen then any oil or lubricants will ignite in the presence of oxygen.

Only enough force should be used to provide a leak tight seal between the cylinder valve and the regulator. If excessive force is used the cylinder may move within its outer jacket. While this is not a safety hazard, should this occur it is an indication that excessive force has been used in tightening the regulator to the cylinder.

## Removing regulators

1. Close the cylinder valve
2. Release all gas from the regulator and system until the gauge(s) read zero, by turning the regulator knob counter clockwise until it stops
3. Close the outlet valve of the regulator (if any)
4. Loosen the regulator using the appropriate spanner and then remove the regulator. Store the regulator in its box, in a clean, dry environment.

## Wheel unit

GENIE is equipped with a rugged wheel unit that must not be removed.

## Daily cylinder use

GENIE cylinders are designed for either continuous or intermittent use. At the end of any period of use, or when you are leaving the cylinder unattended, close the cylinder valve by turning the wheel in a clockwise direction.

## Children and GENIE cylinder

Children should never be allowed to use or operate a GENIE cylinder.

## Maintenance and care

The GENIE cylinder has been designed to require no maintenance from the customer at all.

While the HDPE cylinder jacket has been made as strong and durable as possible, it can still be damaged by misuse.

Should you wish to clean the GENIE cylinder, use a mild detergent such as washing up liquid diluted with warm water. Use a clean cloth to sponge the GENIE cylinder clean.

**⚠ NEVER** immerse a GENIE cylinder in water.

**⚠ NEVER** use a power washer on a GENIE cylinder.

**⚠ NEVER** use chemicals or solvents on a GENIE cylinder.

## Damage

Check the GENIE cylinder for damage before leaving your Linde collection point. When returning the GENIE cylinder, the unit will be checked for damage, and in case of damage, you might be charged for the repair of the cylinder.

## Know your GENIE



- 1 HDPE jacket
- 2 Rugged wheel unit
- 3 Colored gas hazard identification ring
- 4 Ergonomically designed handles and valve protection
- 5 Digital Information Unit (DIU)
- 6 High performance regulator

## Technical data

| Gas type  | Pressure<br>(bar) | Capacity<br>(l) | Diameter<br>(mm) | Height<br>(mm) | Empty weight<br>(kg) | Content<br>(kg/m³) |
|-----------|-------------------|-----------------|------------------|----------------|----------------------|--------------------|
| Argon     | 300               | 10              | 320              | 570            | 15,9                 | 3,0 m³             |
| Cargon 18 | 300               | 20              | 320              | 662            | 22                   | 6,7 m³             |
| Nitrogen  | 300               | 20              | 320              | 662            | 22                   | 5,2 m³             |
| Helium    | 200               | 20              | 320              | 662            | 22                   | 3,6 m³             |

## Troubleshooting

**The Digital Intelligence Unit will not display?**

Press the button once, firmly in the centre. If the unit fails to display, the cylinder will be safe to use but no contents information will be available.

## FAQ's

**Q: Does a normal regulator fit within the handle area?**

A: No, existing regulators are too big to fit within the space between the handles of the GENIE cylinder. GENIE regulators are compact versions of the larger regulators, specifically designed to meet the requirements of this type of cylinder. The small size of the GENIE regulator has the advantage of being within the handle area, which means the regulator should not get damaged, should the cylinder be pushed over.

**Q: Do the GENIE regulators fit on the current steel cylinders?**

A: Yes, although they have been specifically designed for use with a GENIE cylinder, they will fit on a standard steel cylinder if that cylinder is fitted with the same valve.

**Q: Why is the cylinder more stable?**

A: The diameter of 320 mm gives the cylinder more stability, the cylinder is less likely to topple over.

**Q: Where can I buy GENIE?**

A: Contact Linde on +351 218 310 424

**Q: Where can I buy GENIE accessories?**

A: Contact Linde on +351 218 310 424

**P: Who should I contact to report a damaged/faulty cylinder?**

R: Contact Linde on +351 218 310 424

## Information and support

For other queries please call our Customer Service Center on +351 218 310 424.